

## ABSTRACT

The present invention relates to a battery mounted integrated circuit device where an integrated circuit and a solid state battery are formed on the same substrate. In this battery mounted integrated circuit device, a first diffusion layer containing an N-type impurity is formed between a region of a semiconductor substrate where the solid state battery is mounted and a region of the semiconductor substrate where the integrated circuit is mounted, and a second diffusion layer containing an N-type impurity is formed below the region of the semiconductor substrate where the solid state battery is mounted, and overlaps with the first diffusion layer.